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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,259	09/26/2003	Mark Darrell Varvel	S-98,065	5311

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UNITED STATES DEPARTMENT OF ENERGY  
1000 INDEPENDENCE AVENUE, S.W.  
ATTN: GC-62 (CHI), MS 6F-067  
WASHINGTON, DC 20585-0162

EXAMINER

KRECK, JOHN J

ART UNIT	PAPER NUMBER
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3673

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/670,259

Applicant(s)

VARVEL, MARK DARRELL

Examiner

John Kreck

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,8-13 and 18-30 is/are rejected.
- 7) ☒ Claim(s) 2,5-7 and 14-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. It is noted that applicant has claimed a "passive" soil vapor extraction system; however applicant has disclosed and claimed a solar powered turbine; which apparently contradicts applicant's definition of passive (e.g. page 4, line 20: "utilizes ambient meteorological conditions in place of electrical..." A solar powered turbine is understood to be electrical in nature. For examination purposes; the claims are not considered to be limited to purely "passive" systems.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 20 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 20 and 21 recite the limitation "the horizontal conduit" in line 4. There is insufficient antecedent basis for this limitation in the claims.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 30 is rejected under 35 U.S.C. 102(b) as being anticipated by Hobby (U.S. Patent number 5,246,309).

Hobby shows the system including deep well (5); injection well (6); transfer conduit ('A'—between 5 and 6); and extraction well (1) as called for in claim 30.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 4, 8, 9-13, 18-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beard, et al. (U.S. Patent number 5,584,605) in view of Gardner, et al. (U.S. Patent number 5,791,825—cited by applicant).

Beard teaches a system including a deep well (1); injection well (11); transfer conduit (between 19 and 9); and extraction well (7). Beard fails to teach the means for preventing migration.

Gardner teaches a means for prevent migration creating a boundary; and teaches that the boundary is advantageous to prevent spread of contaminants.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Beard system to have included means for preventing migration as called for in claim 1; to prevent spread of contaminants.

With regards to claims 3 and 4; Beard teaches the wells in the contaminated zone; thus it would have been obvious to one of ordinary skill in the art at the time of the invention to have located those wells within a boundary, since those wells are meant for treating the contaminated zone.

Gardner teaches the barrier as called for in claim 8.

Gardner teaches the barrier covering the land surface as called for in claim 9.

With regards to claim 10: Beard shows the turbine attached to the top of the well. Official notice is taken of the fact that it is well known to use solar power to power such devices, for example, where distances to power mains is great. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Beard system to have solar power.

Beard teaches the branched conduit as called for in claim 11.

With regards to claims 12 and 13; Beard shows joints and teaches the conduits for transfer of air. Official notice is taken of the fact that it is well known to create air tight joints in conduits for air transfer; thus it would have been obvious to one of ordinary skill in the art at the time of the invention to have made the joints air-tight.

Beard teaches the well in the waste zone as called for in claim 18.

Beard teaches the extraction well equal to the depth of the contaminants as called for in claim 19.

Beard teaches the deep well conduit (11) coupled to the horizontal (transfer?) conduit as called for in claim 20.

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Beard teaches the injection conduit (1) coupled to the horizontal (transfer?) conduit as called for in claim 21.

With regards to claim 22: Official notice is taken of the fact that it is well known to make such conduits from ABS, PVC, or steel; since these materials are widely available and durable; thus it would have been obvious to one of ordinary skill in the art at the time of the invention to have made the conduit from ABS, PVC, or steel.

Beard teaches the extraction conduit as called for in claim 23.

With regards to claim 24: Official notice is taken of the fact that it is well known to make such conduits from ABS, PVC, or steel; since these materials are widely available and durable; thus it would have been obvious to one of ordinary skill in the art at the time of the invention to have made the conduit from ABS, PVC, or steel.

With regards to claim 25: Official notice is taken of the fact that it is well known to make such conduits from ABS, PVC, or steel; since these materials are widely available and durable; thus it would have been obvious to one of ordinary skill in the art at the time of the invention to have made the conduit from ABS, PVC, or steel.

Beard teaches the injection wells surrounding (each) single extraction well as called for in claim 26.

Beard teaches the extraction wells surrounding (a) single injection well as called for in claim 27.

With regards to claim 28; it is apparent that the deep well of Beard could be used as a monitoring well.

With regards to claim 29; it is apparent that the extraction well of Beard could be used as a monitoring well.

***Allowable Subject Matter***


4. Claims 2, 5-7, 14-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bernhardt (U.S. Patent number 5,346,330) teaches a liquid extraction system with similar well configuration; Basile, et al. (U.S. Patent number 5,279,740); Meo, III (U.S. Patent number 5,360,067); Bastian, et al. (U.S. Patent number 4,745,850); Graves, et al. (U.S. Patent number 5,178,491); and Billings (U.S. Patent number 5,277,518) teach similar vapor extraction systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kreck whose telephone number is (703)308-2725. The examiner can normally be reached on M-F 5:30 am - 2:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on (703)308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
John Kreck  
Examiner  
Art Unit 3673